RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: 10/566, 573 Source: /FWP,	
Date Processed by STIC: 2/7/06	

ENTERED



IFWP

RAW SEQUENCE LISTING DATE: 02/07/2006
PATENT APPLICATION: US/10/566,573 TIME: 14:14:58

Input Set : A:\Sequence Listing ASCII, Docket No. 2144.0330000.St25.txt

Output Set: N:\CRF4\02072006\J566573.raw

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3 <110> APPLICANT: GENEFIELD, INC.
     5 <120> TITLE OF INVENTION: METHODS OF SCREENING FOR USEFUL PROTEINS (as amended)
     7 <130> FILE REFERENCE: 2144.0330000
C--> 9 <140> CURRENT APPLICATION NUMBER: US/10/566,573
C--> 9 <141> CURRENT FILING DATE: 2006-01-31
     9 <150> PRIOR APPLICATION NUMBER: JP 2003-205139
     10 <151> PRIOR FILING DATE: 2003-07-31
    12 <150> PRIOR APPLICATION NUMBER: JP 2003-416228
    13 <151> PRIOR FILING DATE: 2003-12-15
     15 <160> NUMBER OF SEQ ID NOS: 56
    17 <170> SOFTWARE: PatentIn version 3.1
    19 <210> SEQ ID NO: 1
    20 <211> LENGTH: 55
    21 <212> TYPE: DNA
    22 <213> ORGANISM: Artificial
    24 <220> FEATURE:
    25 <223> OTHER INFORMATION: an artificially synthesized sequence
    27 <220> FEATURE:
    28 <221> NAME/KEY: modified base
    29 <222> LOCATION: (20)..(20)
    30 <223> OTHER INFORMATION: Biotin is bonded to the 20th cytosine.
    32 <400> SEQUENCE: 1
    33 cccggtgcag ctgtttcatc cggaaacagc tgcaccccc gccgccccc gtcct
                                                                               55
    36 <210> SEQ ID NO: 2
    37 <211> LENGTH: 36
    38 <212> TYPE: PRT
    39 <213> ORGANISM: Artificial
    41 <220> FEATURE:
    42 <223> OTHER INFORMATION: an artificially synthesized sequence
    44 <220> FEATURE:
    45 <221> NAME/KEY: MISC FEATURE
    46 <222> LOCATION: (1)..(4)
    47 <223> OTHER INFORMATION: "Xaa" = any amino acids.
    49 <220> FEATURE:
    50 <221> NAME/KEY: MISC_FEATURE
    51 <222> LOCATION: (6)..(8)
    52 <223> OTHER INFORMATION: "Xaa" = any amino acids.
    54 <220> FEATURE:
    55 <221> NAME/KEY: MISC FEATURE
    56 <222> LOCATION: (10)..(12)
    57 <223> OTHER INFORMATION: "Xaa" = any amino acids.
    59 <220> FEATURE:
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60 <221> NAME/KEY: MISC FEATURE

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Input Set : A:\Sequence Listing ASCII, Docket No. 2144.0330000.St25.txt
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     61 <222> LOCATION: (14)..(17)
     62 <223> OTHER INFORMATION: "Xaa" = any amino acids.
     64 <220> FEATURE:
     65 <221> NAME/KEY: MISC FEATURE
     66 <222> LOCATION: (19)..(22)
     67 <223> OTHER INFORMATION: "Xaa" = any amino acids.
     69 <220> FEATURE:
     70 <221> NAME/KEY: MISC_FEATURE
     71 <222> LOCATION: (24)..(31)
     72 <223> OTHER INFORMATION: "Xaa" = any amino acids.
     74 <220> FEATURE:
     75 <221> NAME/KEY: MISC_FEATURE
     76 <222> LOCATION: (33)..(36)
     77 <223> OTHER INFORMATION: "Xaa" = any amino acids.
     79 <400> SEQUENCE: 2
W--> 80 Kaa Xaa Xaa Kaa Cys Xaa Xaa Cys Xaa Kaa Xaa Cys Xaa Xaa Xaa
                    5
     81 1
                                            10
W--> 83 Xaa Cys Xaa Xaa Xaa Xaa Cys Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Cys
                    20
W--> 86 Xaa Xaa Xaa Xaa
     87
                35
     90 <210> SEQ ID NO: 3
     91 <211> LENGTH: 36
     92 <212> TYPE: PRT
     93 <213> ORGANISM: Artificial
     95 <220> FEATURE:
     96 <223> OTHER INFORMATION: an artificially synthesized sequence
     98 <220> FEATURE:
     99 <221> NAME/KEY: MISC FEATURE
     100 <222> LOCATION: (1)..(2)
     101 <223> OTHER INFORMATION: "Xaa" = any amino acids.
     103 <220> FEATURE:
     104 <221> NAME/KEY: MISC FEATURE
     105 <222> LOCATION: (4)..(12)
     106 <223> OTHER INFORMATION: "Xaa" = any amino acids.
     108 <220> FEATURE:
     109 <221> NAME/KEY: MISC_FEATURE
     110 <222> LOCATION: (14)..(15)
     111 <223> OTHER INFORMATION: "Xaa" = any amino acids.
     113 <220> FEATURE:
     114 <221> NAME/KEY: MISC_FEATURE
     115 <222> LOCATION: (17)..(21)
     116 <223> OTHER INFORMATION: "Xaa" = any amino acids.
     118 <220> FEATURE:
     119 <221> NAME/KEY: MISC FEATURE
     120 <222> LOCATION: (23)..(27)
     121 <223> OTHER INFORMATION: "Xaa" = any amino acids.
     123 <220> FEATURE:
     124 <221> NAME/KEY: MISC FEATURE
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RAW SEQUENCE LISTING

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```
Input Set : A:\Sequence Listing ASCII, Docket No. 2144.0330000.St25.txt
                     Output Set: N:\CRF4\02072006\J566573.raw
    125 <222> LOCATION: (29)..(31)
    126 <223> OTHER INFORMATION: "Xaa" = any amino acids.
    128 <220> FEATURE:
    129 <221> NAME/KEY: MISC FEATURE
    130 <222> LOCATION: (33)..(36)
    131 <223> OTHER INFORMATION: "Xaa" = any amino acids.
    133 <400> SEQUENCE: 3
W--> 134 Xaa Xaa Cys Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Cys Xaa Xaa Cys
    135 1
                        5
                                             10
 --> 137 Xaa Xaa Xaa Xaa Xaa Cys Xaa Xaa Xaa Xaa Cys Xaa Xaa Xaa Cys
    138
                                         25
W--> 140 Xaa Xaa Xaa Xaa
    141
                35
    144 <210> SEQ ID NO: 4
    145 <211> LENGTH: 215
    146 <212> TYPE: DNA
    147 <213> ORGANISM: Artificial
    149 <220> FEATURE:
    150 <223> OTHER INFORMATION: an artificially synthesized sequence
    152 <220> FEATURE:
    153 <221> NAME/KEY: misc_feature
    154 <222> LOCATION: (71)..(82)
    155 <223> OTHER INFORMATION: "n" = a, t, g, or c.
    157 <220> FEATURE:
    158 <221> NAME/KEY: misc feature
    159 <222> LOCATION: (86)..(109)
    160 <223> OTHER INFORMATION: "n" = a, t, g, or c.
    162 <220> FEATURE:
    163 <221> NAME/KEY: misc feature
    164 <222> LOCATION: (113)..(124)
    165 <223 > OTHER INFORMATION: "n" = a, t, g, or c.
    167 <220> FEATURE:
    168 <221> NAME/KEY: misc feature
    169 <222> LOCATION: (128)..(139)
    170 <223> OTHER INFORMATION: "n" = a, t, g, or c.
    172 <220> FEATURE:
    173 <221> NAME/KEY: misc feature
    174 <222> LOCATION: (143)..(151)
    175 <223 > OTHER INFORMATION: "n" = a, t, g, or c.
    177 <220> FEATURE:
    178 <221> NAME/KEY: misc feature
    179 <222> LOCATION: (155)..(163)
    180 <223> OTHER INFORMATION: "n" = a, t, g, or c.
    182 <220> FEATURE:
    183 <221> NAME/KEY: misc_feature
    184 <222> LOCATION: (167)..(178)
    185 <223 > OTHER INFORMATION: "n" = a, t, q, or c.
    187'<400> SEOUENCE: 4
    188 tttccccgcc ccccgtcctg cttccgccgt gatgatgatg atgatggcct ccgcttggag
                                                                                60
```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/566,573

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Output Set: N:\CRF4\02072006\J566573.raw

```
120
180
    194 tggtggcttg tagttgtaga atgtaaaatg taatg
                                                                      215
    197 <210> SEQ ID NO: 5
    198 <211> LENGTH: 215
    199 <212> TYPE: DNA
    200 <213> ORGANISM: Artificial
    202 <220> FEATURE:
    203 <223> OTHER INFORMATION: an artificially synthesized sequence
    205 <220> FEATURE:
    206 <221> NAME/KEY: misc feature
    207 <222> LOCATION: (38)..(43)
    208 <223> OTHER INFORMATION: "n" = a, t, g, or c.
    210 <220> FEATURE:
    211 <221> NAME/KEY: misc feature
    212 <222> LOCATION: (47)..(73)
    213 <223 > OTHER INFORMATION: "n" = a, t, g, or c.
    215 <220> FEATURE:
    216 <221> NAME/KEY: misc feature
    217 <222> LOCATION: (77)..(82)
    218 <223 > OTHER INFORMATION: "n" = a, t, g, or c.
    220 <220> FEATURE:
    221 <221> NAME/KEY: misc_feature
    222 <222> LOCATION: (86)..(100)
    223 <223 > OTHER INFORMATION: "n" = a, t, g, or c.
    225 <220> FEATURE:
    226 <221> NAME/KEY: misc feature
    227 <222> LOCATION: (104)..(118)
    228 <223 > OTHER INFORMATION: "n" = a, t, g, or c.
    230 <220> FEATURE:
    231 <221> NAME/KEY: misc_feature
    232 <222> LOCATION: (122)..(130)
    233 <223> OTHER INFORMATION: "n" = a, t, g, or c.
    235 <220> FEATURE:
    236 <221> NAME/KEY: misc feature
    237 <222> LOCATION: (134)..(145)
    238 <223 > OTHER INFORMATION: "n" = a, t, g, or c.
    240 <400> SEQUENCE: 5
W--> 241 catggtggct tgtagttgta gaatgtaaaa tgtaatgnnn nnntgtnnnn nnnnnnnnn
                                                                      60
120
W--> 245 tnnnnnnnn tgtnnnnnn nnnnnccctc cggccctcca agcggaggcc atcatcatca
                                                                      180
                                                                      215
    247 tcatcacggc ggaagcagga cggggggcgg ggaaa
    250 <210> SEQ ID NO: 6
    251 <211> LENGTH: 37
    252 <212> TYPE: DNA
    253 <213> ORGANISM: Artificial
    255 <220> FEATURE:
    256 <223> OTHER INFORMATION: an artificially synthesized primer sequence
```

258 <400> SEQUENCE: 6

RAW SEQUENCE LISTING DATE: 02/07/2006
PATENT APPLICATION: US/10/566,573 TIME: 14:14:58

Input Set : A:\Sequence Listing ASCII, Docket No. 2144.0330000.St25.txt

Output Set: N:\CRF4\02072006\J566573.raw

259 cattacattt tacattctac aactacaagc caccatg 37 262 <210> SEQ ID NO: 7 263 <211> LENGTH: 19 264 <212> TYPE: DNA 265 <213> ORGANISM: Artificial 267 <220> FEATURE: 268 <223> OTHER INFORMATION: an artificially synthesized primer sequence 270 <400> SEQUENCE: 7 19 ' 271 tttccccgcc ccccgtcct 274 <210> SEQ ID NO: 8 275 <211> LENGTH: 117 276 <212> TYPE: DNA 277 <213> ORGANISM: Artificial 279 <220> FEATURE: 280 <223> OTHER INFORMATION: an artificially synthesized primer sequence 282 <400> SEQUENCE: 8 283 gatcccgcga aattaatacg actcactata ggggaagtat ttttacaaca attaccaaca 60 285 acaacaacaa acaacaacaa cattacattt tacattctac aactacaagc caccatg 117 288 <210> SEO ID NO: 9 289 <211> LENGTH: 19 290 <212> TYPE: DNA 291 <213> ORGANISM: Artificial 293 <220> FEATURE: 294 <223> OTHER INFORMATION: an artificially synthesized primer sequence 296 <400> SEQUENCE: 9 19 297 aqqacqqqqq qcqqqaaa 300 <210> SEQ ID NO: 10 301 <211> LENGTH: 40 302 <212> TYPE: DNA 303 <213> ORGANISM: Artificial 305 <220> FEATURE: 306 <223> OTHER INFORMATION: an artificially synthesized primer sequence 308 <400> SEQUENCE: 10 309 caacaacatt acattttaca ttctacaact acaagccacc 40 312 <210> SEQ ID NO: 11 313 <211> LENGTH: 19 314 <212> TYPE: DNA 315 <213> ORGANISM: Artificial 317 <220> FEATURE: 318 <223> OTHER INFORMATION: an artificially synthesized primer sequence 320 <400> SEQUENCE: 11 19 321 tttccccgcc ccccgtcct 324 <210> SEQ ID NO: 12 325 <211> LENGTH: 117 326 <212> TYPE: DNA 327 <213> ORGANISM: Artificial 329 <220> FEATURE: 330 <223> OTHER INFORMATION: an artificially synthesized sequence 332 <400> SEQUENCE: 12

RAW SEQUENCE LISTING ERROR SUMMARY DATE: 02/07/2006
PATENT APPLICATION: US/10/566,573 TIME: 14:14:59

Input Set: A:\Sequence Listing ASCII, Docket No. 2144.0330000.St25.txt
Output Set: N:\CRF4\02072006\J566573.raw

Please Note:

. . . .

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

```
Seg#:2; Xaa Pos. 1,2,3,4,6,7,8,10,11,12,14,15,16,17,19,20,21,22,24,25,26,27
Seq#:2; Xaa Pos. 28,29,30,31,33,34,35,36
Seq#:3; Xaa Pos. 1,2,4,5,6,7,8,9,10,11,12,14,15,17,18,19,20,21,23,24,25,26
Seq#:3; Xaa Pos. 2/1, 29, 30, 31, 33, 34, 35, 36—
Seq#:4; N Pos. 71-72-,73-,74-75-76-77-78-79-80,81-82-86-87-88-89,90,91,92,93
Seq#:4; N Pos. 94-95-96-97.98-99-100-101-102-103-104-105-7106-7107-7108-109-
Seq#:4; N Pos. 113,114,115,116,117,118,119,120,121,122,123,124,128,129,130
Seq#:4; N Pos. 131,-132,-133,134,135,136,-137,-138,-139,143,-144,-145,-146,-147,,148
Seq#:4; N Pos. 149,150,151,155,156,157,158,159,160,161,162,163,167,168,169
Seq#:4; N Pos. 170,171,172,173,174,175,176,177,178
Seq#:5; N Pos. 38, 39, 40, 41, 42, 43, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60
Seq#:5; N Pos. 61,62,63,64,65,66,67,68,69,70,71,72,-13,79,78,79,80,81,82,86
Seq#:5; N Pos. 87,88,89,90,91,92,93,94,95,,96,,97-,98,99,100,104,105,106,107
Seq#:5; N Pos. 108,-109,-110,111,.112,113,114,115,-116,.117,.118,122,.123,.124,-125
Seq#:5; N Pos. 126,127,128,129,130,134,135,136,137,138,139,140,141,142,143
Seq#:5; N Pos. 144,145
Seq#:13; N Pos. 33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52
Seq#:13; N Pos. 53,54,55,56,57,58,59,60,61,62,63,64,65,66,67,68,69,70,71,72
Seg#:13; N Pos. 73,74,75,76,77,78,79,80,81,82,83,84,85,86,87,88,89
Seq#:15; N Pos. 124,125,126,127,128,129,130,131,132,133,134,135,136,137,138
Seq#:15; N Pos. 139,140,141,142,143,144,145,146,147,148,149,150,151,152,153
Seq#:15; N Pos. 154,155,156,157,158,159,160,161,162,163,164,165,166,167,168
Seq#:15; N Pos. 169,170,171,172,173,174,175,176,177,178,179,180
Seq#:29; Xaa Pos. 19
Seq#:47; Xaa Pos. 31
Seq#:48; Xaa Pos. 31
```

Invalid Line Length:

The rules require that a line not exceed 72 characters in length. This includes spaces.

```
Seq#:54; Line(s) 1013,1018
Seq#:55; Line(s) 1039,1044
Seq#:56; Line(s) 1065,1070
```

Invalid <213> Response:

Use of "Artificial" only as "<213> Organism" response is incomplete, per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

```
Seq#:1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27
Seq#:28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51
Seq#:52,53,54,55,56
```

VERIFICATION SUMMARY

RY DATE: 02/07/2006 : US/10/566.573 TIME: 14:14:59

PATENT APPLICATION: US/10/566,573 TIME: 14:14:59

Input Set : A:\Sequence Listing ASCII, Docket No. 2144.0330000.St25.txt

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L:9 M:270 C: Current Application Number differs, Replaced Current Application No L:9 M:271 C: Current Filing Date differs, Replaced Current Filing Date L:80~M:341~W:~(46)~"n" or "Xaa" used, for SEQ ID#:2 after pos.:0 L:83 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:16 L:86 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:32 L:134 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0 L:137 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:16 L:140 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:32 L:190 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:60 L:192 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:120 L:241 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:0 L:243 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:60 L:245 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:120 L:355 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13 after pos.:0 L:357 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13 after pos.:60 $L:395 \ M:341 \ W:$ (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:120 L:619 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:29 after pos.:16 L:909 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:47 after pos.:16 L:930 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:48 after pos.:16